

Name: _____

Date: _____

A2CC: Additional Review for Exam1 Quarter 2

This review sheet is not comprehensive. Please look over your old exams to prepare fully spending time specifically on questions that you struggled with on those assessments.

PLEASE DO ALL WORK ON SEPARATE LINED PAPER. Due: Wednesday, November 30th

1. Solve: $\frac{2x}{x-8} - \frac{5}{2} = \frac{x+8}{x-8}$

2. Solve for b : $3b^{-\frac{1}{2}} + 1 = 10$

3. Solve for x : $3x - 5\sqrt{x} = 2$

In 4-5, solve each inequality and express the solution set in (a) interval notation, and (b) set builder notation.

4. $-x^2 + 9x - 14 < 0$

5. $x^2 - 6x \geq -8$

In 6-8 , solve each.

6. $x^2 - 8x + 4 = 0$

7. $x^4 - x^2 - 12 = 0$

8. $16x^2 - 25 = 0$

In 9-11, solve each by COMPLETING THE SQUARE.

9. $x^2 - 6x - 3 = 0$

10. $2x^2 - 5 = -2x$

11. $2x^2 - 8x - 3 = 0$

In 12-13, solve using the Quadratic Formula.

12. $3x^2 + x - 1 = 0$ (Final answers must be in simplest radical form.)

13. $2x^2 - 4x = 8$ (Final answers should be rounded to the nearest hundredth.)

14. If a quadratic equation with real coefficients has a discriminant of 12 then its two roots must be
- | | |
|---------------|-------------------------|
| (1) equal | (3) real and irrational |
| (2) imaginary | (4) real and rational |
15. The roots of $ax^2 + 4x + 2 = 0$ are real and equal when a is equal to
- | | | | |
|-------|-------|-------|-------|
| (1) 1 | (2) 2 | (3) 3 | (4) 4 |
|-------|-------|-------|-------|
16. Find the largest integral value of k in the equation $kx^2 - 5x + 2 = 0$ that will make its roots real.
17. Find the largest integral value of c for which the roots of $3x^2 - 6x - c = 0$ are imaginary.